REMARKS/ARGUMENTS

Applicant thanks the Examiner for his consideration of this case. Claims 1 and 21 are currently amended. Claims 11, 12, and 13 are cancelled. Claims 1 through 10 and 14 through 37 are pending in the current application and no claims have yet been allowed. No new matter has been added to the application.

The Examiner has rejected claims 1-4, 6-8, 10-11, 13-18, 20 and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,359,251 to Picard, et al. (the '251 Patent). The Examiner has objected to Claims 5, 9, 12, 19, and 22-37 as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has amended Claims 1 and 21 to incorporate the limitation of Claims 11, 12, and 13. The amendment Claim 1 adds the limitation that at least one volume flow of at least one gas is controlled "on the basis of at least one of calorimetric measurement of the volume flow, measurement of the volume flow from differential pressure, and measurement of the pulse movement of the volume flow." Claim 21 is amended to add the limitation that the volume flow control controls the at least one volume flow of the at least one gas "on the basis of at least one of calorimetric measurement of the volume flow, measurement of the volume flow from differential pressure, and measurement of the pulse movement of the volume flow." The '251 Patent does not teach any of the limitations taught by Claims 11, 12, or 13. Namely, the '251 Patent does not teach volume flow control using measurements of calorimetric, differential pressure, or pulse movement. Specifically, in the '251 Patent each gas flow, whether the shield gas or the cut gas, has a dedicated pressure transducer that provides feedback to a CNC. (Col. 13, lines 14-31.) The CNC then adjusts the gas flow as necessary. (Id.) There is no indication or suggestion in the '251 Patent that the pressure transducers function any differently than simple

Application Number:

10/564,170

Amendment dated:

July 17, 2007

Reply to Office Action dated:

April 18, 2007

pressure gauges. Neither is there any suggestion in the '251 Patent that any other type of measurement of any other type of physical property may be conducted to provide control of gases.

In view of the foregoing, applicant submits that claims 1-10 and 14-37 are in a proper condition for allowance. Allowance of claims 1 through 37 is respectfully requested.

Date: July 17, 2007

Respectfully Submitted,

Jon L Woodard Reg. No. 45,515

MacDonald, Illig, Jones & Britton LLP

100 State Street, Suite 700 Erie, PA 16507-1459

(814) 870-7664

Certificate of Mailing

I hereby certify that this document is being filed via EFS-Web on the date shown below with the Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Date: July 17, 2007

1027999